

# WEATHER and CLIMATE :

## ACTUAL DATA

by

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SOILS AND CROPS

PRAIRIELAND PARK , SASKATOON

MARCH 10, 2020

A word about:

# CLIMATE CHANGE

Anyone that lives on planet earth  
who thinks that climate is not  
changing:

Should look for another planet

# *WEATHER*

= DAY TO DAY

WEEK TO WEEK

MONTH TO MONTH

YEAR TO YEAR

Variation in temperature  
precipitation  
et al

# *CLIMATE*

= THE 30 YEAR AVERAGE

To trace climate change  
we must plot the moving  
30 year average

# Canadian Climate Normals on line

1981-2010, 1971-2000, 1961-1990

on paper  
1951- 1980

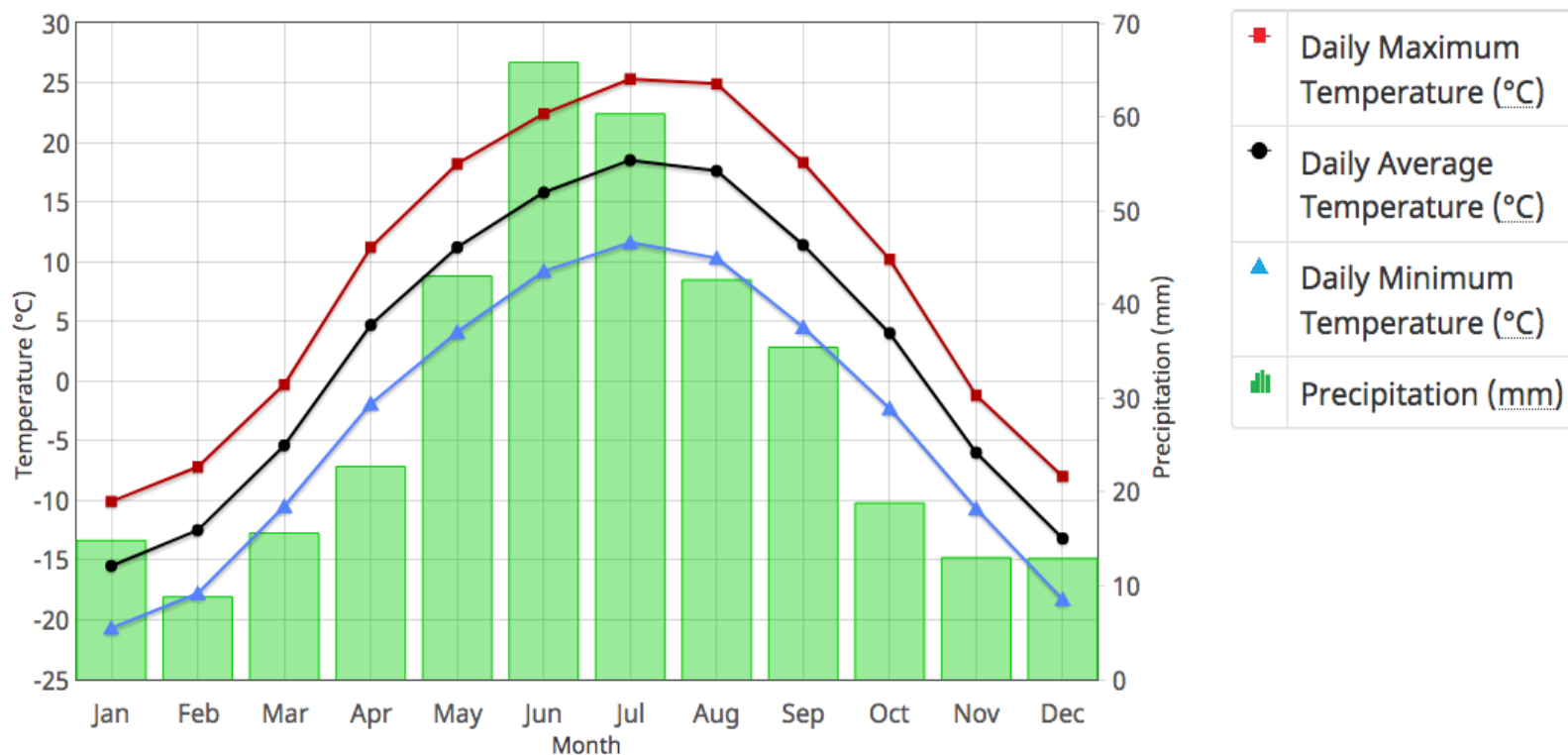
# Canadian Climate Normals 1981-2010 Station Data

Temperature and Precipitation Graph

Normals Data

Station / Element Metadata

## Temperature and Precipitation Graph for 1981 to 2010 Canadian Climate Normals SASKATOON DIEFENBAKER INT'L A



To trace climate change

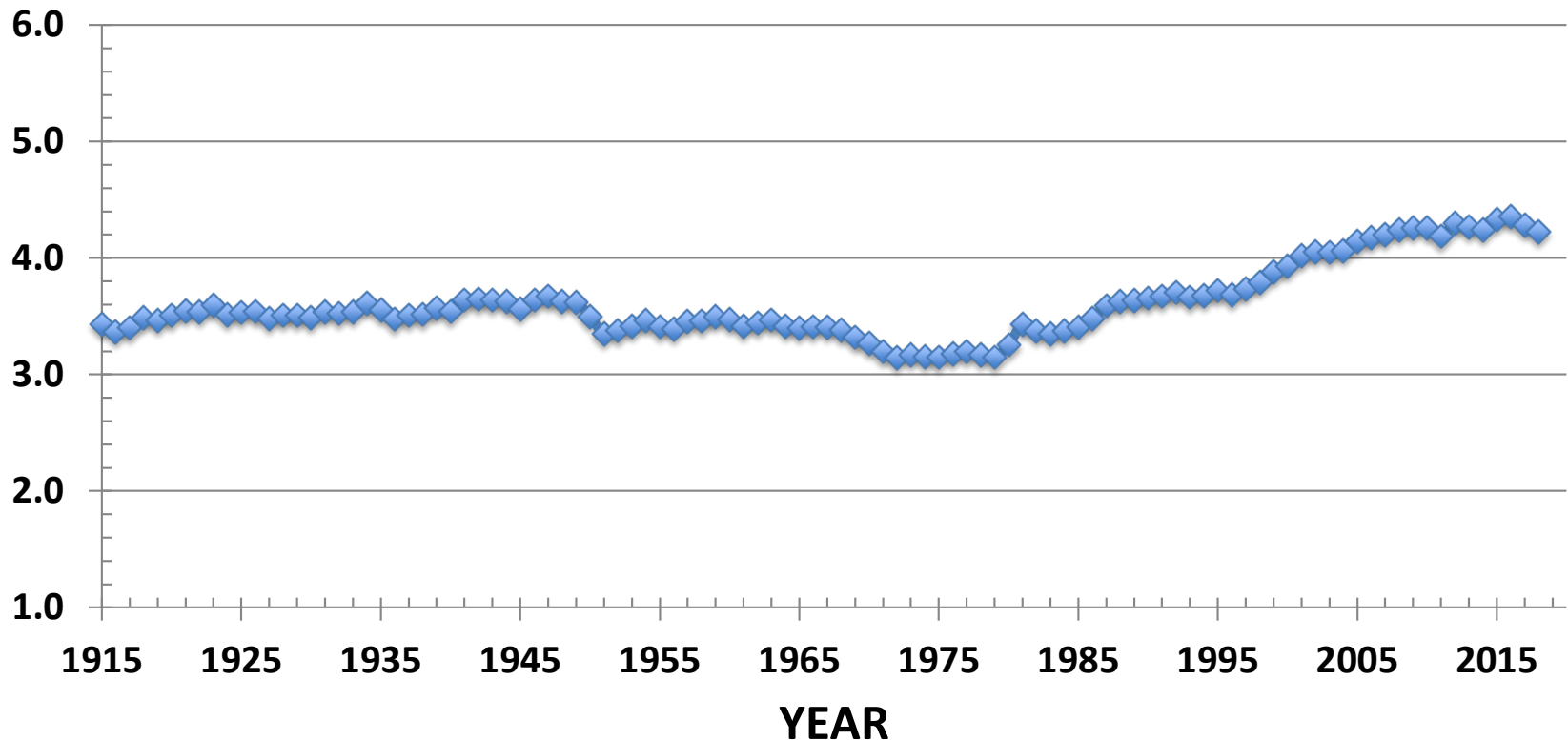
we must plot the moving

30 year average

AAFC Swift Current has complete  
monthly record back to 1886

First Climate point is 2015

**30 year moving average**  
**Swift Current , Saskatchewan**  
**1915 = Average 1886-1915,**  
**2018 =Average 1989-2018**



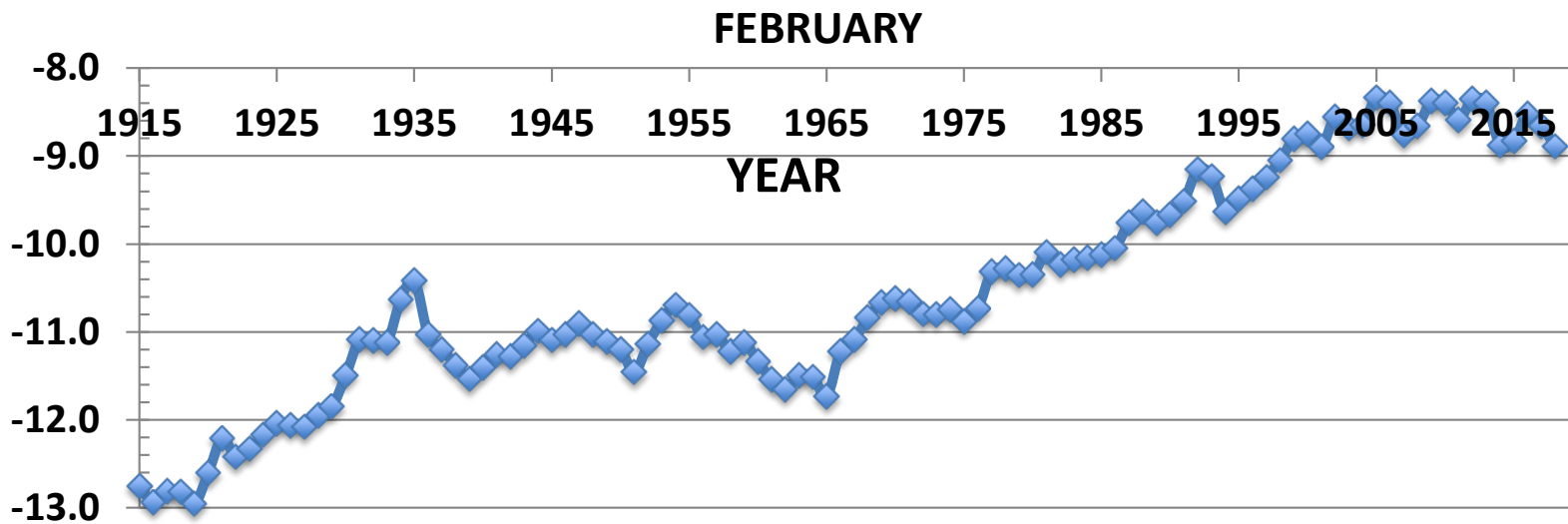
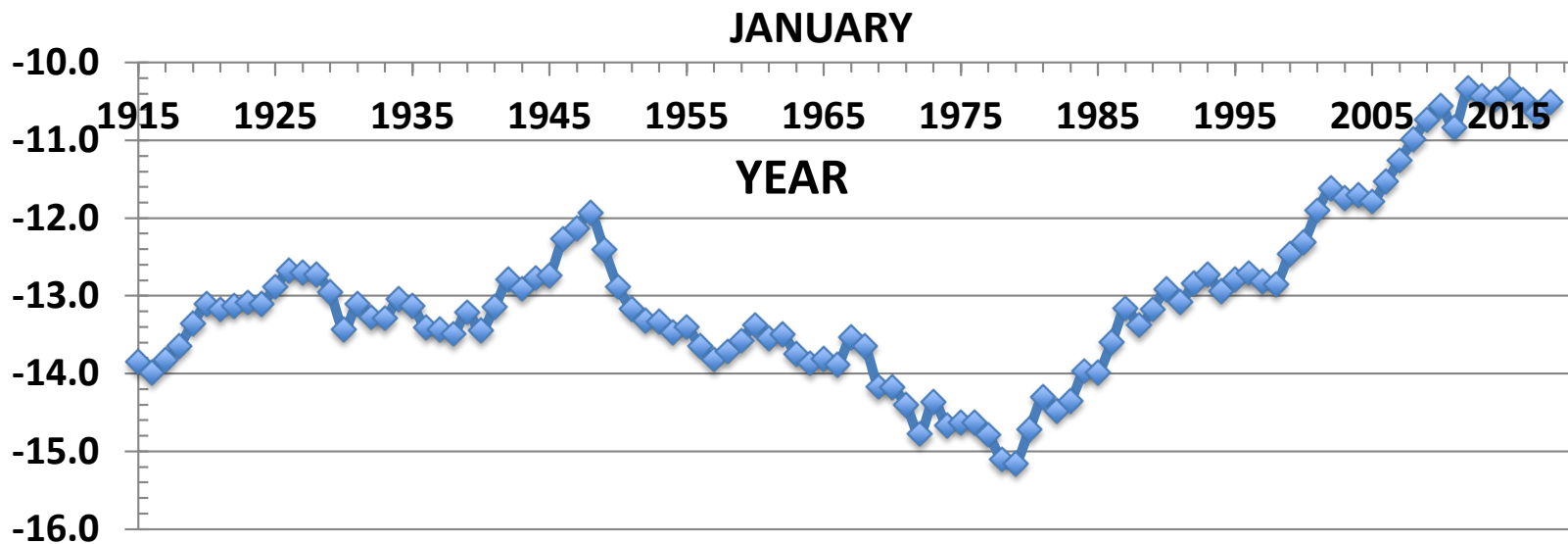


FOLLOWING SLIDES:

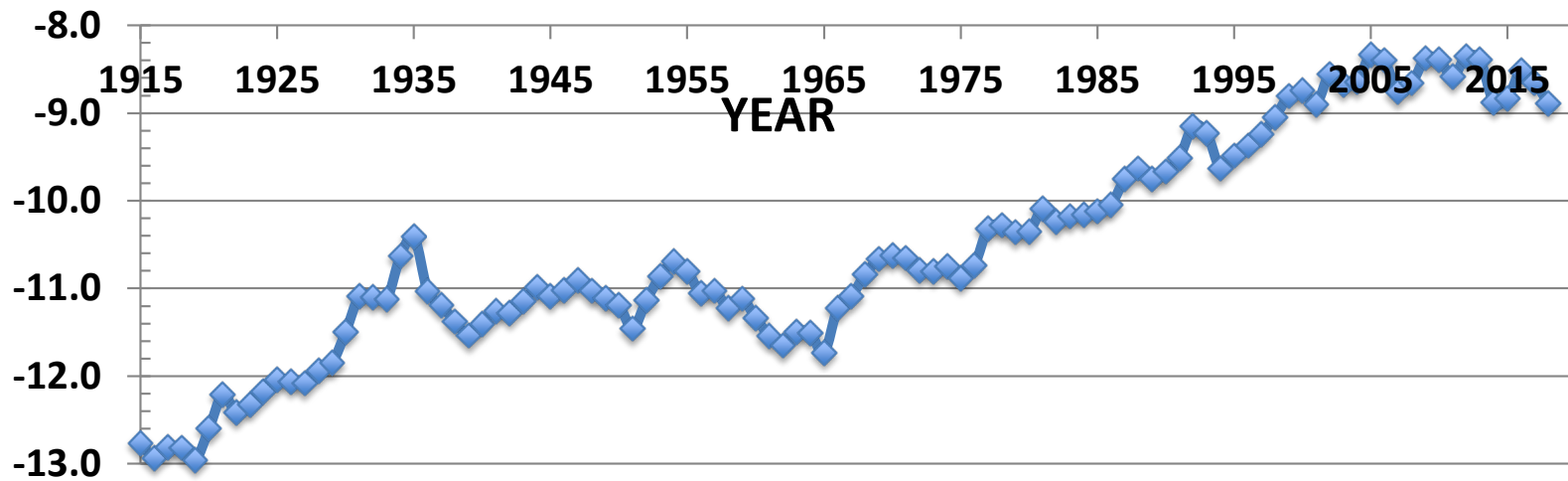
ARE 30 YEAR MOVING AVERAGE  
TEMPERATURE  $^{\circ}\text{C}$

FOR SWIFT CURRENT

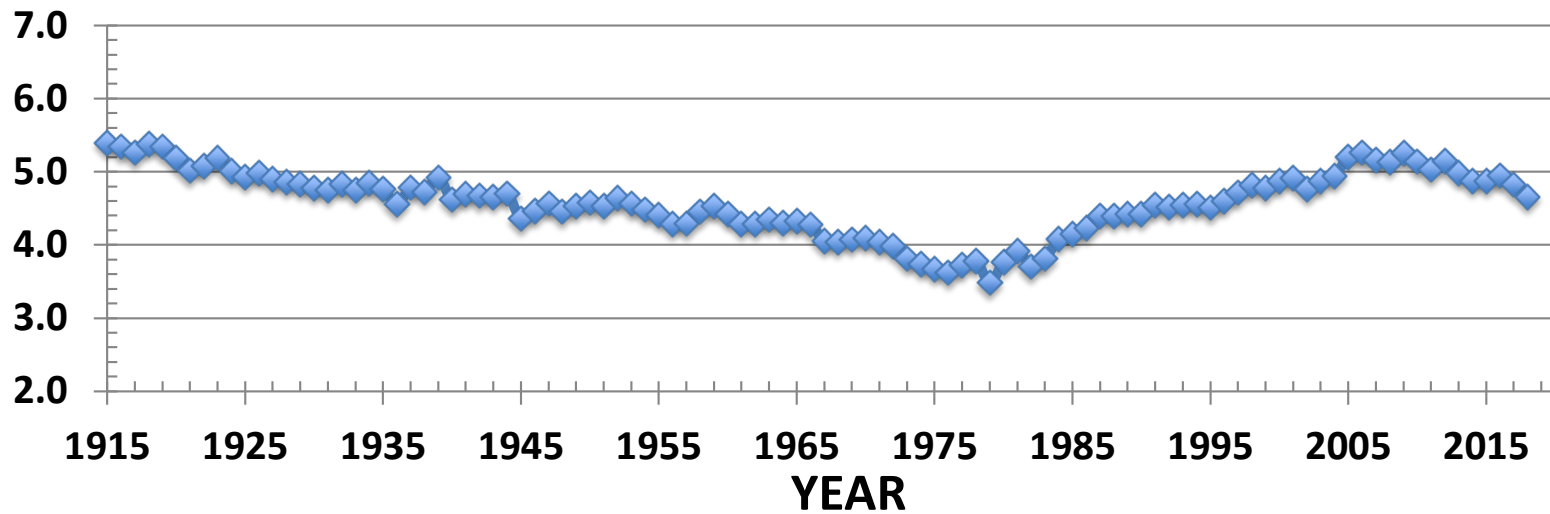
FOR EACH MONTH



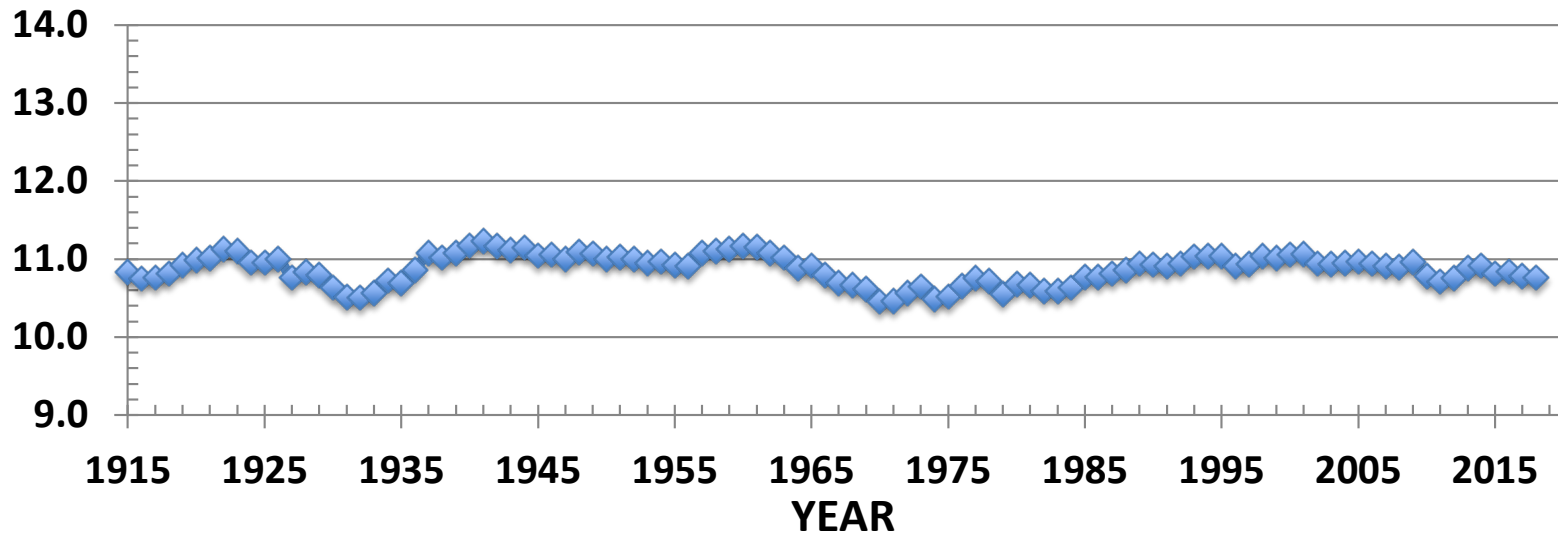
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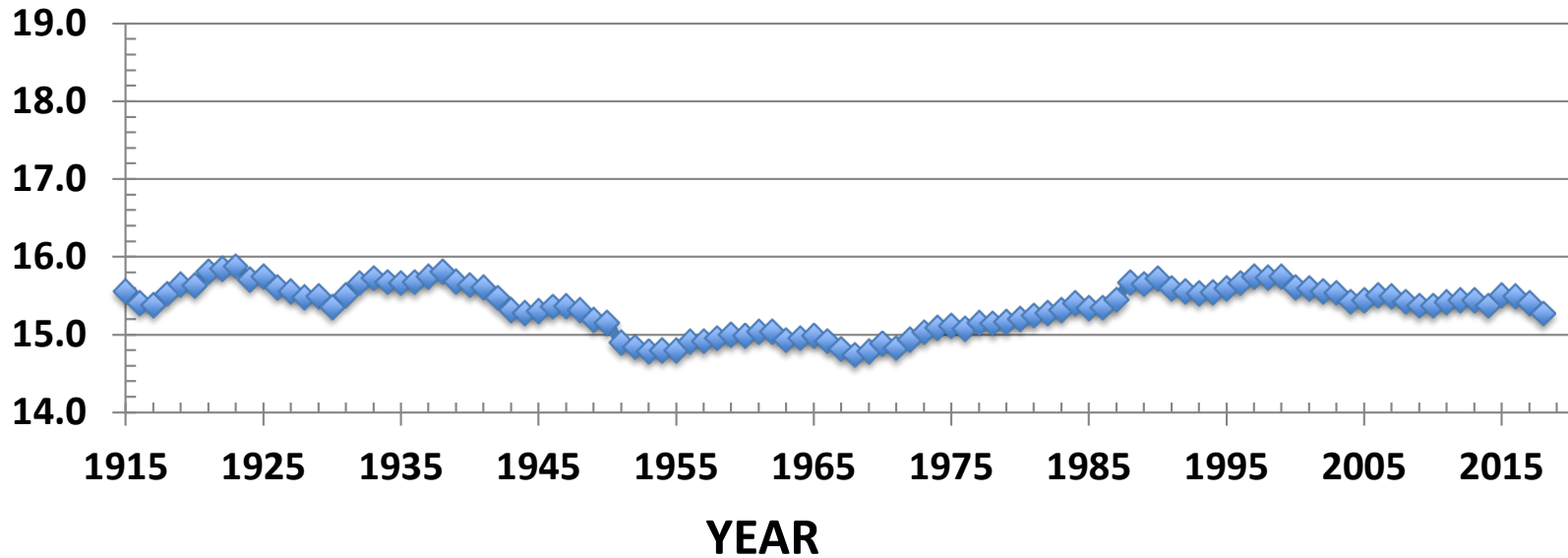
## APRIL



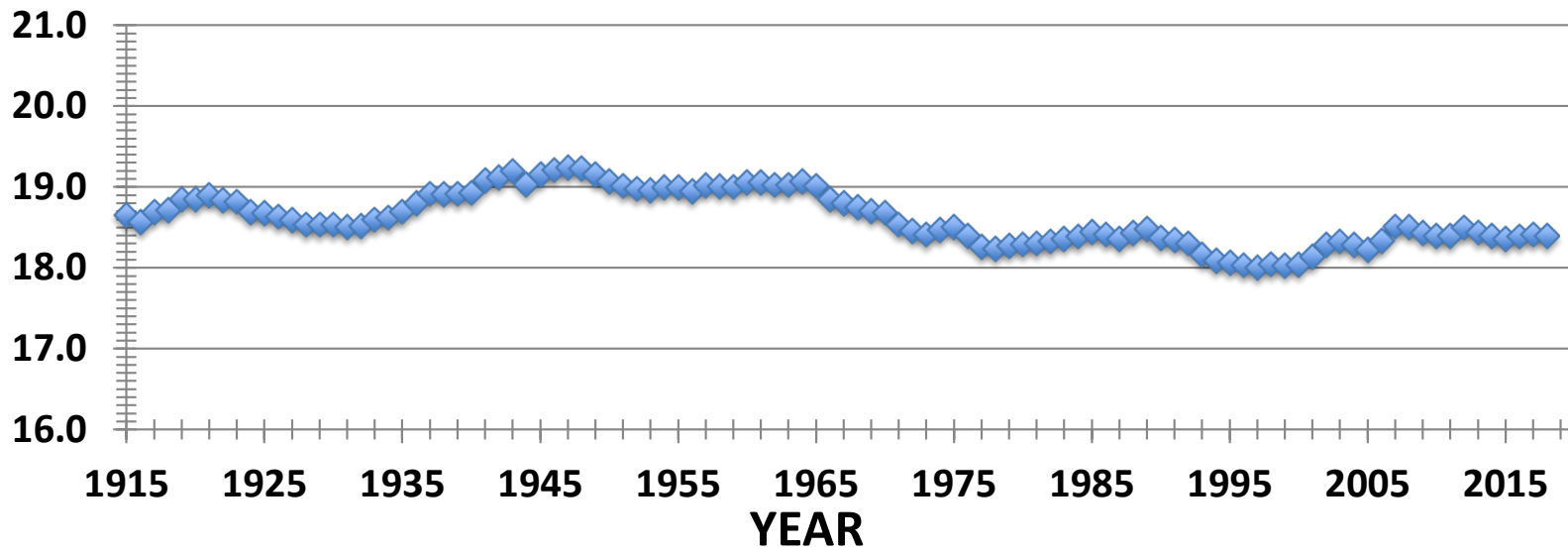
## MAY



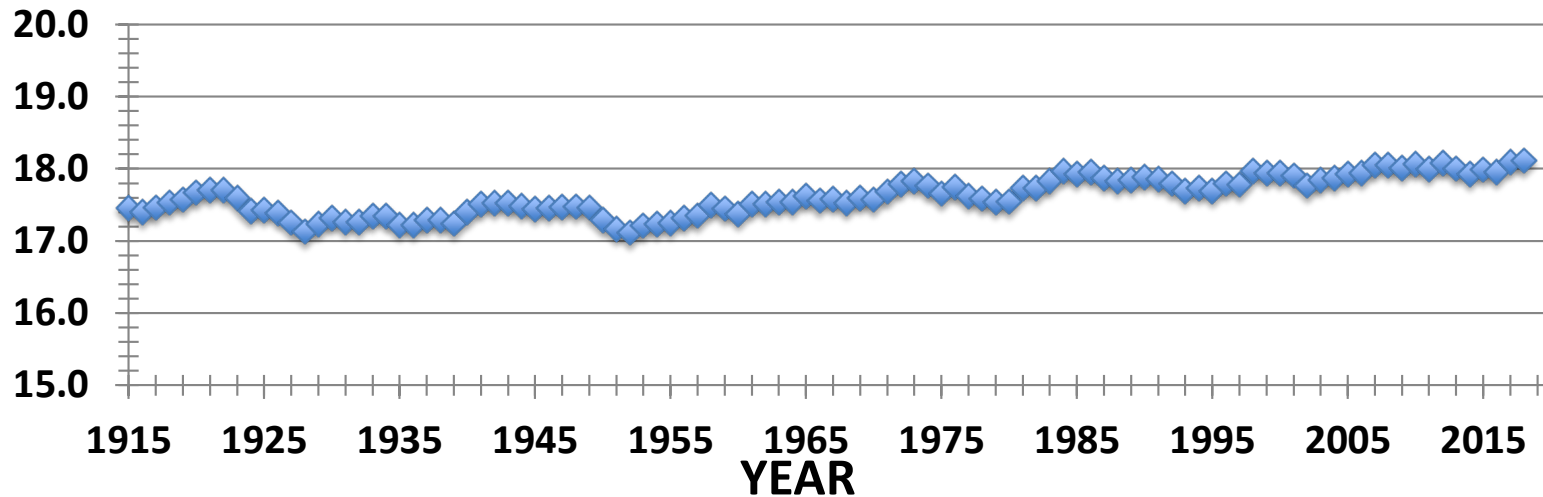
## JUNE



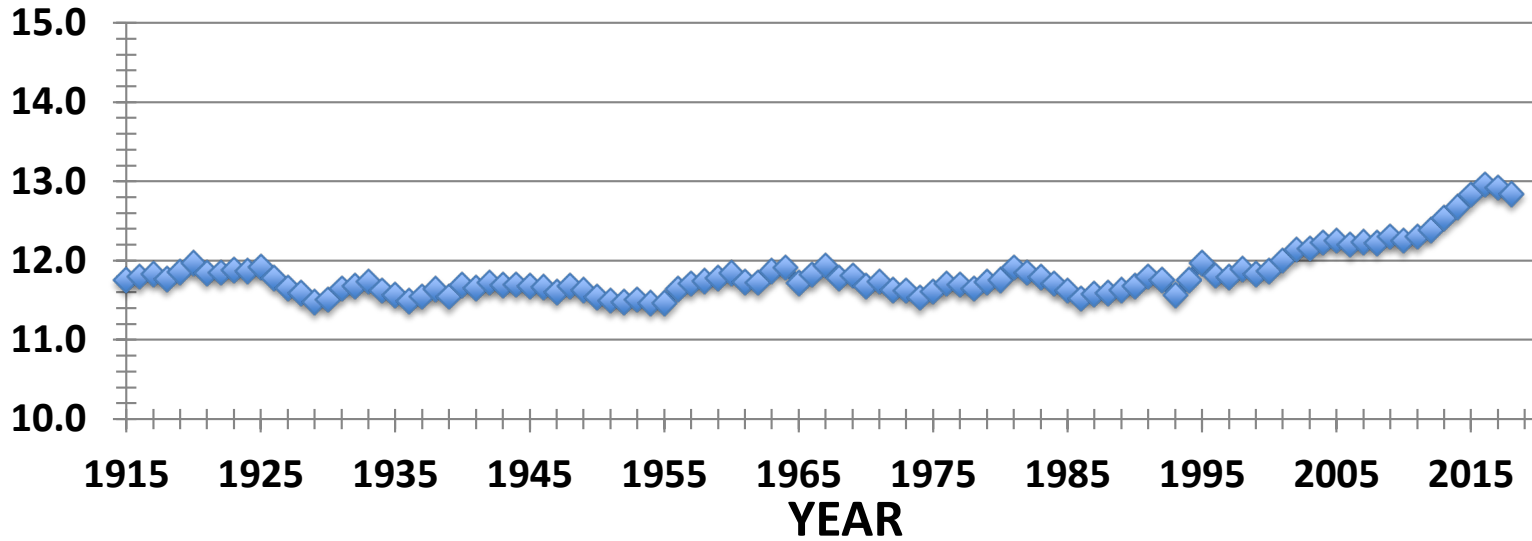
## JULY



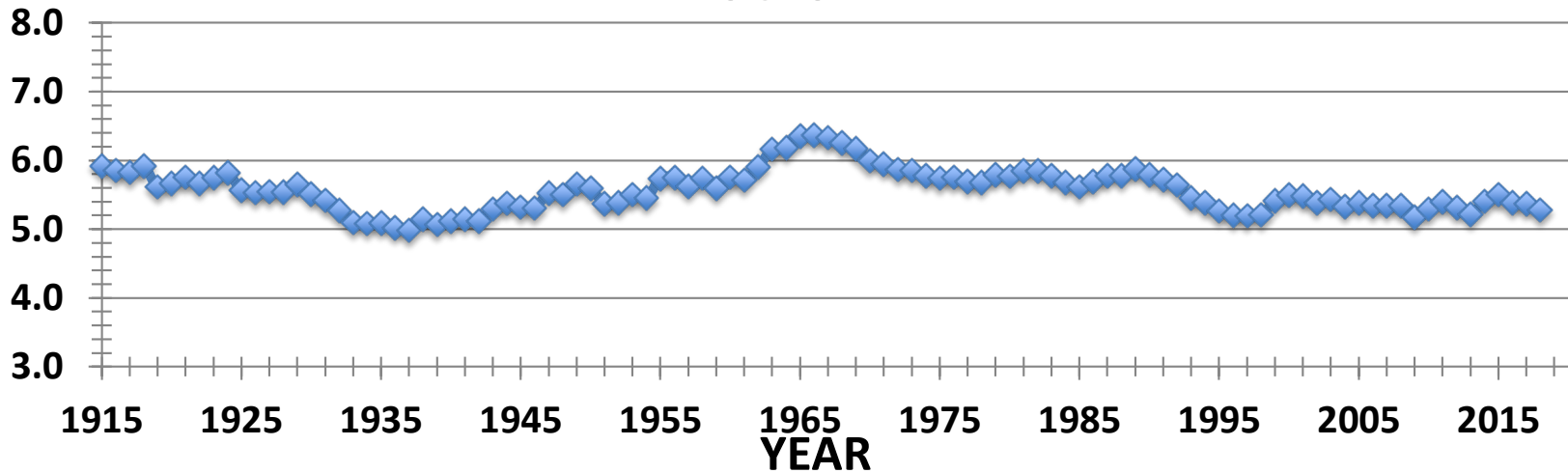
## AUGUST



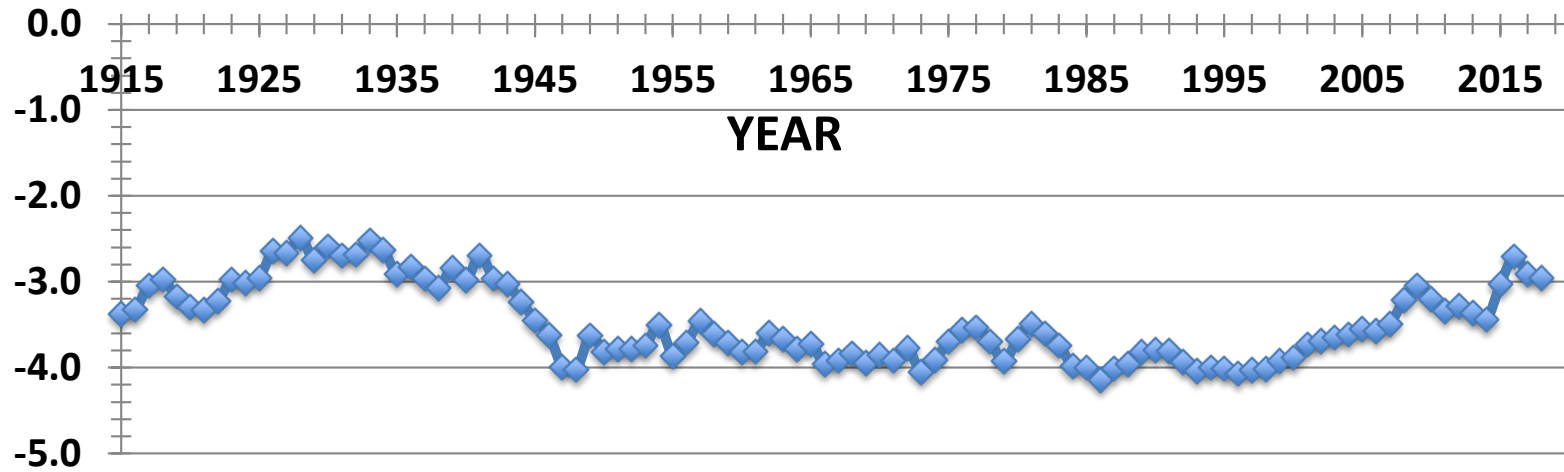
## SEPTEMBER



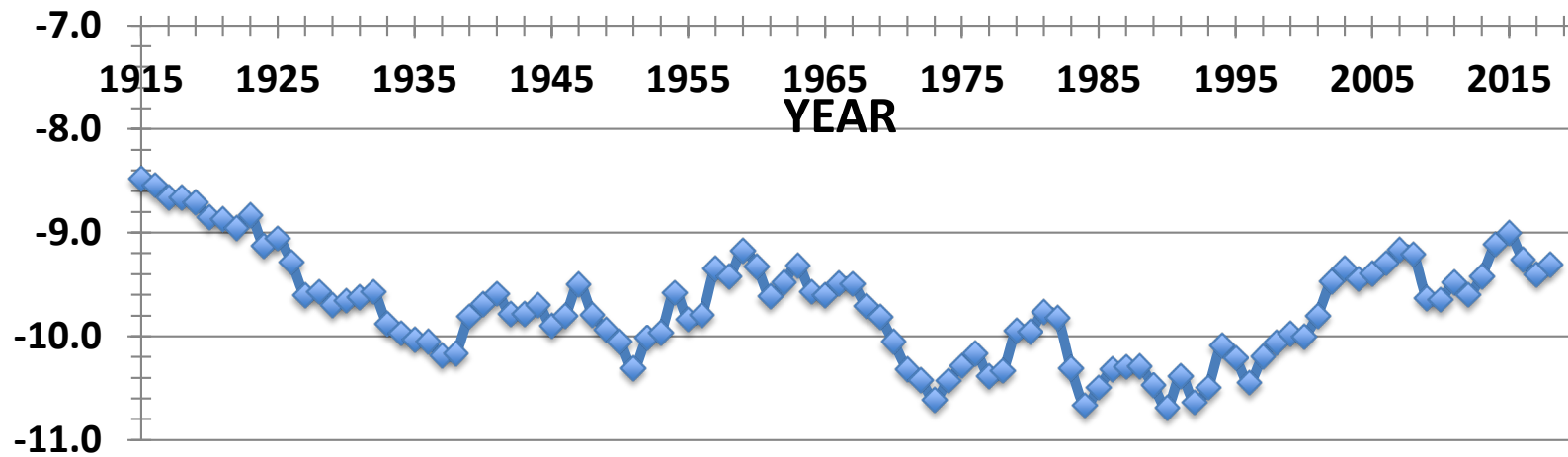
## OCTOBER



## NOVEMBER



## DECEMBER



SWIFT CURRENT

??? ONE SITE ???

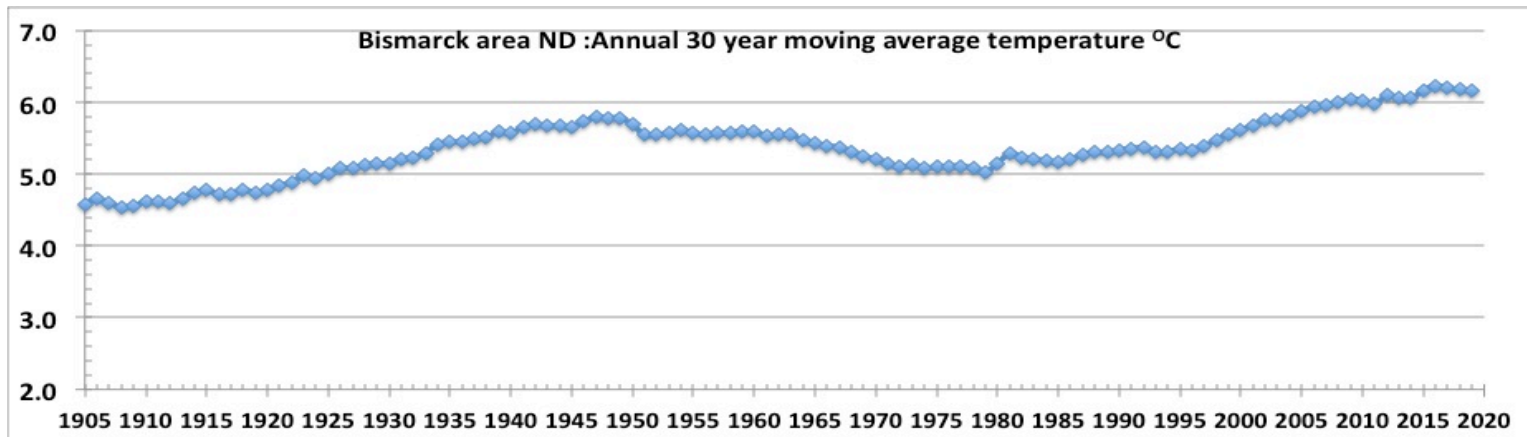
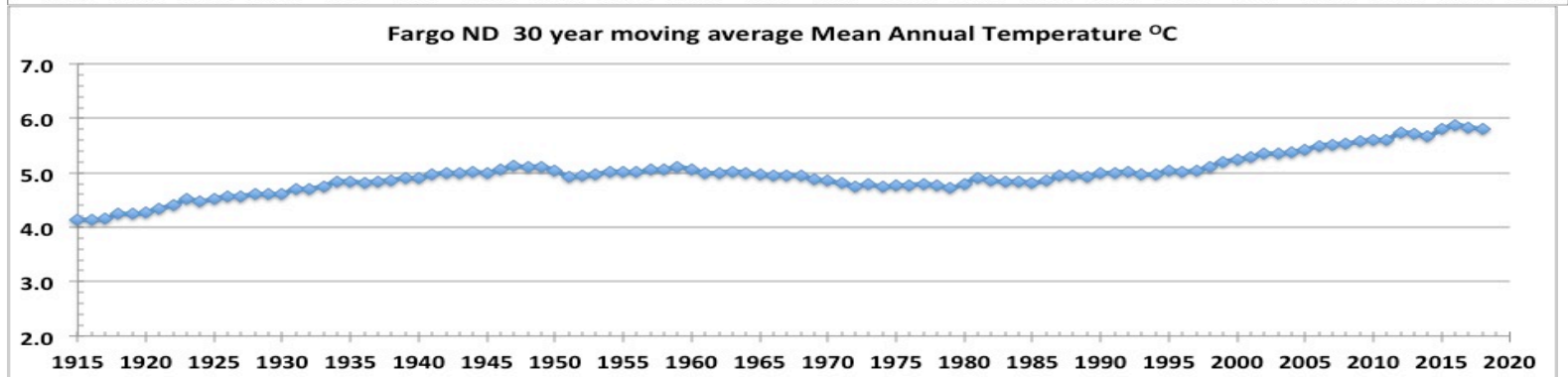
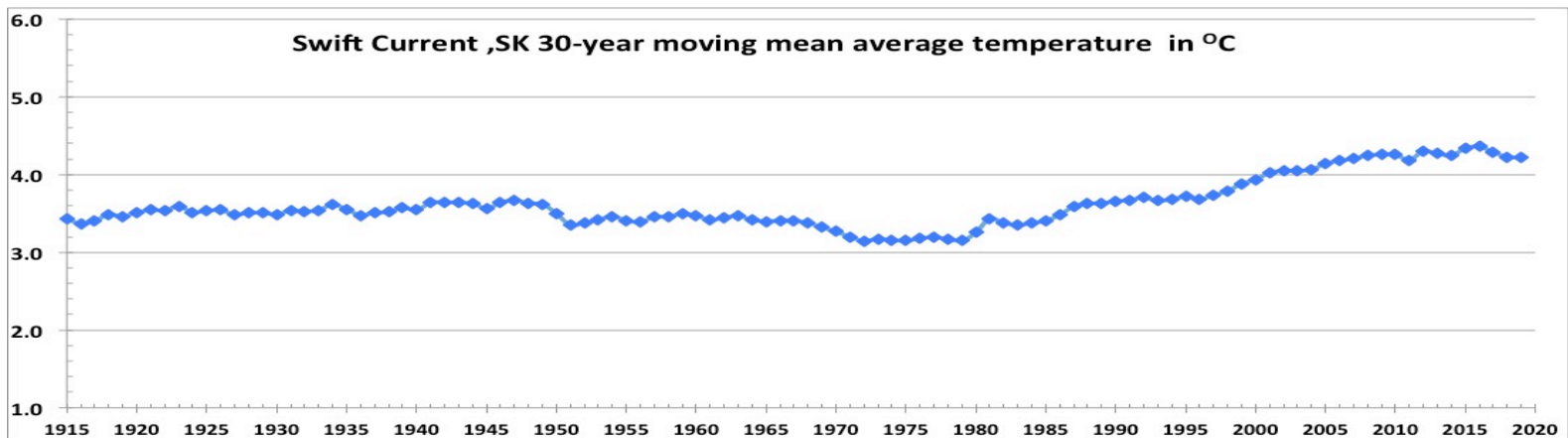
CANADA – No access to data  
if it even exists

US : NOAA NATIONAL WEATHER SERVICE

Many sites with complete data

DODGE CITY KANSAS – all the way back to Wyatt Earp





## OTHER SITES COMPILED TO DATE:

HAVRE MT,

DODGE CITY KS,

WICHITA KS,

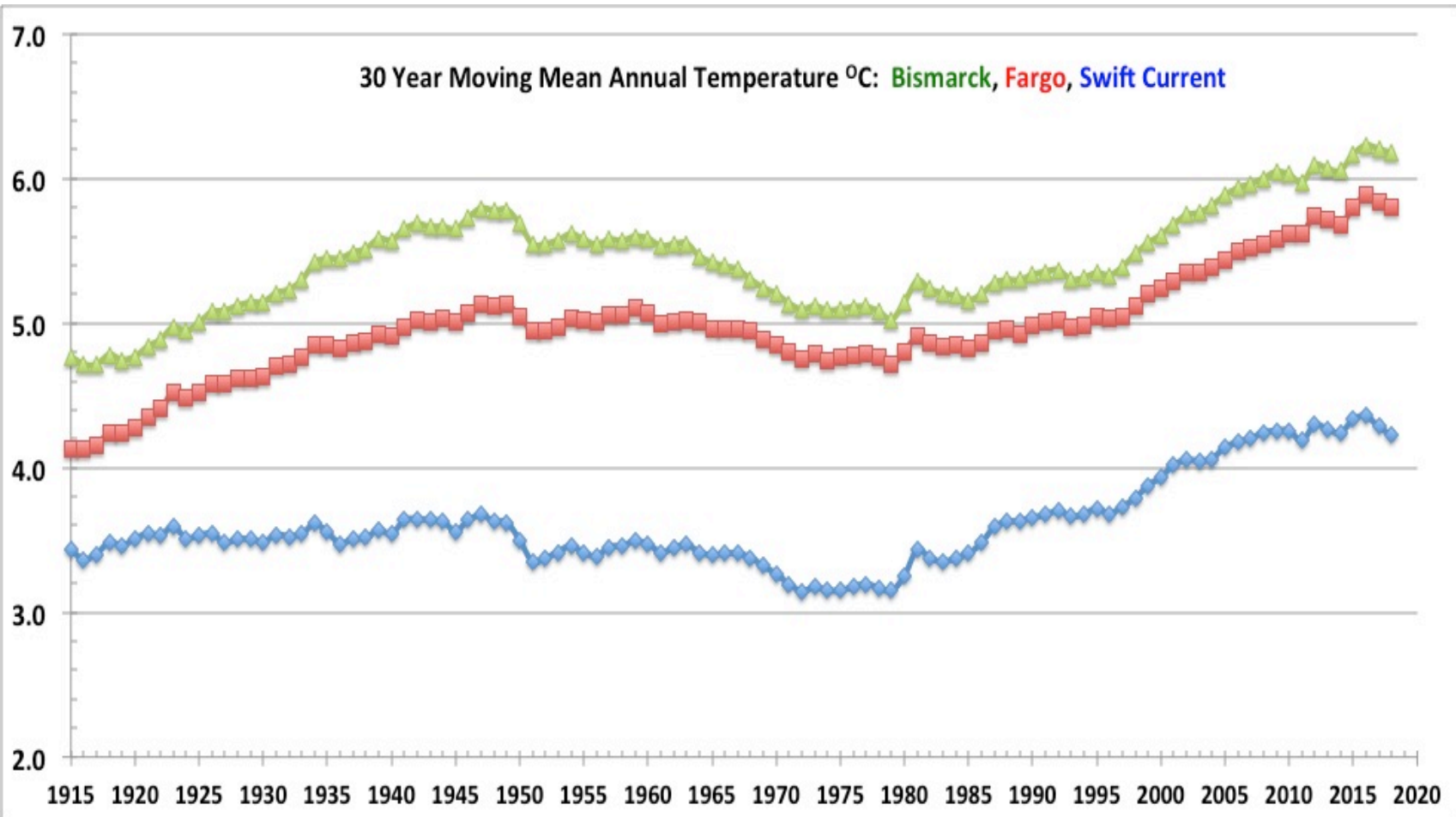
DE MOINES IA,

DUBUQUE IA,

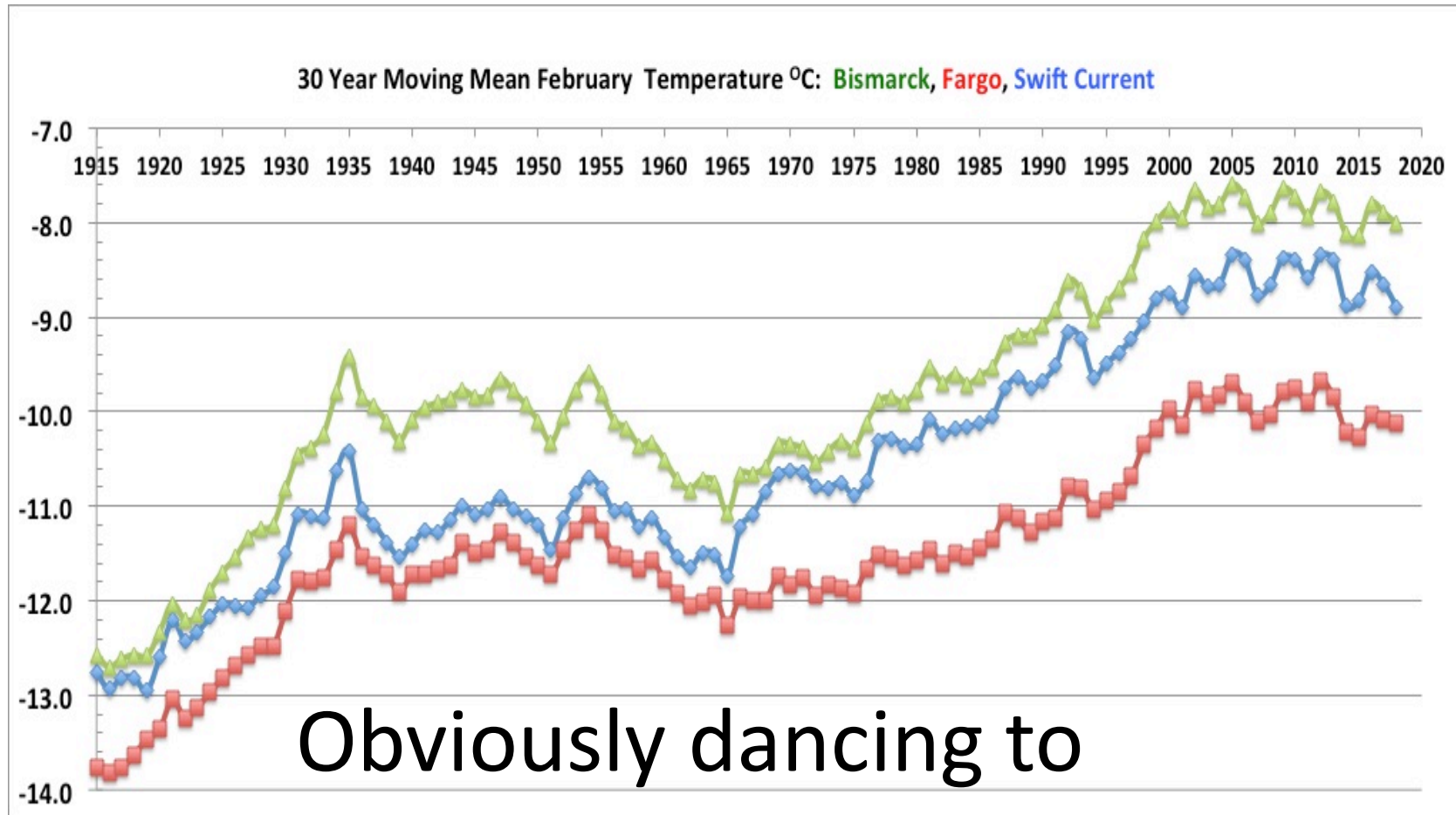
RALEIGH NC,

HONOLULU HI.

# MEAN ANNUAL TEMPERATURE

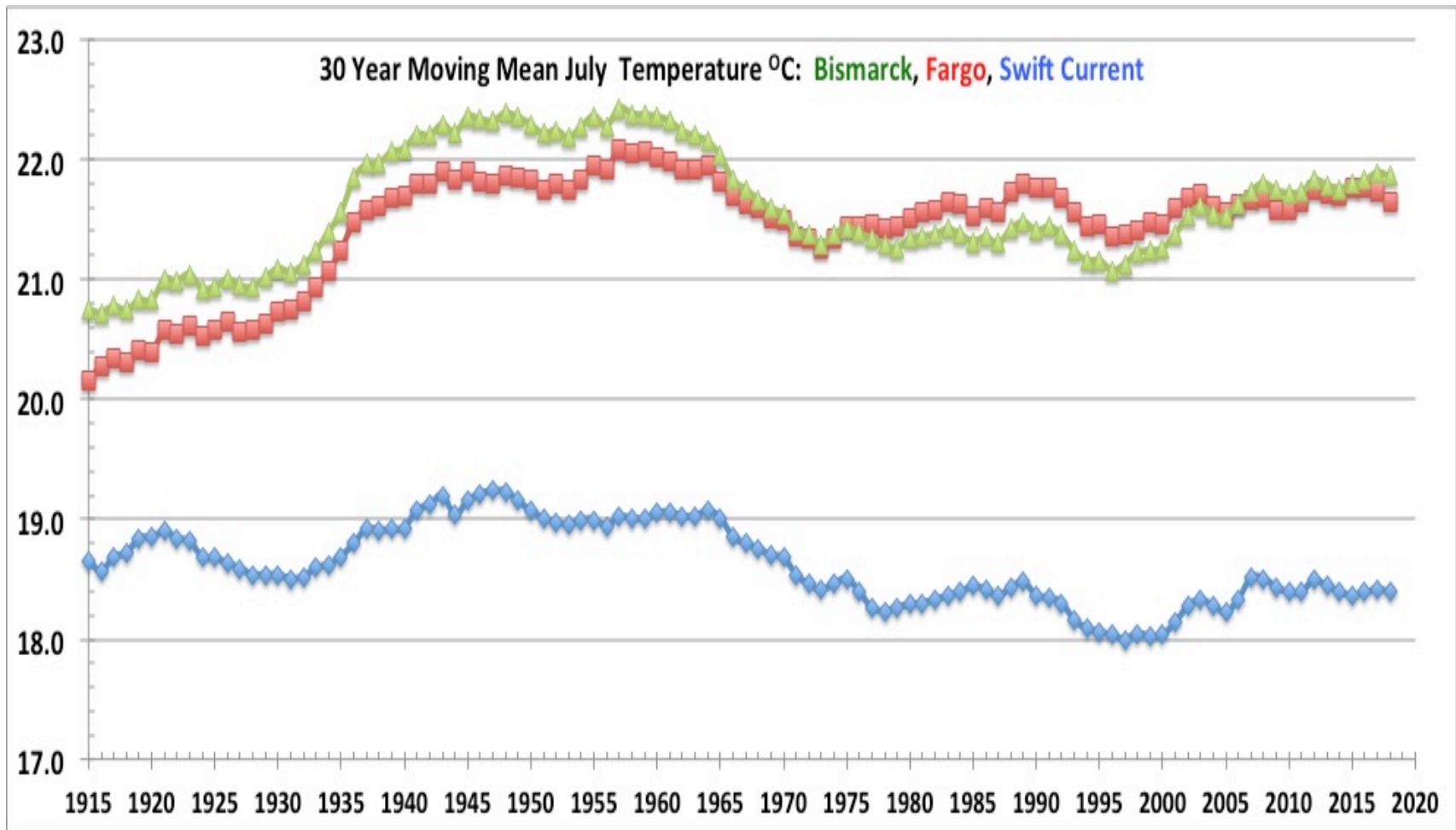


# FEBRUARY TEMPERATURE



Obviously dancing to  
the same drummer

# JULY TEMPERATURE



# CONCLUSIONS

THE DATA HAS BEEN PRESENTED

DRAW YOUR OWN CONCLUSIONS  
ABOUT THE EFFECT OF  
CLIMATE CHANGE  
ON AGRICULTURE IN THE  
NORTHERN GREAT PLAINS OF NA

THE  
END

??????????